

IN THE CLAIMS

The current claims for this application are listed below.

1. (Canceled)

2. (Currently amended) ~~A method as in claim 1 further comprising~~ A digital processing implemented method for processing a data set enabling interactive random access for different views of an object, said method comprising:

storing a plurality of frames of said object, said plurality of frames representing a set of views of said object;

assigning a reference number to each of said plurality of frames;

arranging said plurality of frames in a preferred layout; and

dividing said preferred layout into a plurality of blocks having frames sharing spatial similarities and compressing each of said plurality of blocks separately;

selecting at least one key frame and a plurality of non-key frames for each of said plurality of blocks; and

compressing each of said non-key frame and said key frame for each of said plurality of blocks separately such that a compressing sequence includes going away from said key frame until reaching a boundary of each of said plurality of blocks to cover each of said non-key frames.

3. (Original) A method as in claim 2 wherein a longest compressing path of any one of said non-key frames and said key frame is less than a predetermined number of frames from said key frame.
4. (Original) A method as in claim 3 further comprising including a video track layout for said set of views, said video track layout making references to a data source track, said data source track to comprise compressed data for said set of views wherein each of said at least one key frame and said non-key frames is compressed only once and is referenced as many times as necessary by said video track layout.
5. (Original) A method as in claim 4 wherein each of said video track, wherein at least one key frame is near a center of each of said plurality of blocks.
6. (Original) A method as in claim 5 wherein each of said plurality of blocks has a size that is one of equal to a predetermined size and smaller than said predetermined size.
7. (Original) A method as in claim 6 wherein said preferred layout is a two-dimensional array.

8. (Original) A method as in claim 7 further comprising:
dividing said preferred layout such that a smaller size block is at a further top and
a further left corner of said preferred layout and a larger size block is at a
further bottom and a further right corner of said preferred layout; and
selecting said at least one key frame such that said at least one key frame is closer
to a further top and a further left corner of each of said plurality of blocks.
9. (Original) A method as in claim 8 wherein a frame differencing compression
method is used to compress each of said plurality of blocks separately.
10. (Canceled)
11. (Canceled)
12. (Original) A method as in claim 9 wherein said method is performed by a
server computer system.
13. (Original) A method as in claim 12 wherein said method is performed by a
world-wide web server.

14. - 18. (Canceled)

19. (Currently amended) ~~A method as in claim 14~~ A digital processing implemented method for receiving and using a data set enabling interactive random access for different views of an object, said method comprising:

transmitting a request to receive said data set, said data set including frames of said object, said frames representing views of said object; and
receiving said data set wherein said frames were arranged in a preferred layout, said preferred layout was divided into a plurality of blocks wherein each of said plurality of blocks was compressed separately and wherein said data set further comprises at least one key frame and a plurality of non-key frames for each of said plurality of blocks, each of said at least one key frame was compressed prior to said non-key frames such that a compressing sequence includes going away from said key frame until reaching a boundary of each of said plurality of blocks to cover each of said non-key frames.

20. (Original) A method as in claim 19 wherein said preferred layout, said plurality of blocks, said at least one key frame, and said plurality of non-key frames were

arranged such that a longest compressing path of any one of said non-key frames and said key frame is less than a predetermined number of frames from said key frame.

21. (Original) A method as in claim 20 wherein said data set further comprising a video track layout for said views, said video track layout making references to a data source track, said data source track including compressed data for said views wherein each of said at least one key frame and said non-key frames is compressed only once and is referenced as many times as necessary by said video track layout.

22. (Original) A method as in claim 21 wherein each of said at least one key frame is near a center of each of said plurality of blocks.

23. (Original) A method as in claim 22 wherein each of said plurality of blocks has a size that is one of equal to a predetermined size and smaller than said predetermined size.

24. (Original) A method as in claim 23 wherein said preferred layout is a two-dimensional array.

25. (Original) A method as in claim 24 wherein said preferred layout is divided such that a smaller size block is at a further top and a further left corner of said preferred layout and a larger size block is at a further bottom and a further right corner of said preferred layout and wherein said at least one key frame is closer to a further top and a further left corner of each of said plurality of blocks.

26. (Original) A method as in claim 25 wherein said method is performed by a digital processing system and wherein said data set is received from a server computer system.

27. (Original) A method as in claim 26 wherein a frame differencing compression method is used to separately compress each of said plurality of blocks.

28. (Canceled)

29. (Currently amended) ~~A computer readable storage medium as in claim 28 further comprising~~ A computer readable storage medium containing executable computer program instructions which when executed cause a digital processing implemented method for processing a data set enabling interactive random access for different views of an object, said method comprising:

storing a plurality of frames of said object, said plurality of frames representing a
set of views of said object;
assigning a reference number to each of said plurality of frames;
arranging said plurality of frames in a preferred layout; and
dividing said preferred layout into a plurality of blocks having frames sharing
spatial similarities and compressing each of said plurality of blocks separately;
selecting at least one key frame and a plurality of non-key frames for each of said
plurality of blocks; and
compressing each of said non-key frame and said key frame for each of said
plurality of blocks separately such that a compressing sequence includes going away
from said key frame until reaching a boundary of each of said plurality of blocks to cover
each of said non-key frames.

30. (Original) A computer readable storage medium as in claim 29 wherein said
dividing said preferred layout into a plurality of blocks and said selecting at least one key
frame and a plurality of non-key frames for each of said plurality of blocks are such that a
longest compressing path of any one of said non-key frames and said key frame is less
than a predetermined number of frames from said key frame.

31. (Original) A computer readable storage medium as in claim 30 further comprising including a video track layout for said set of views, said video track layout making references to a data source track, said data source track to comprise compressed data for said set of views wherein each of said at least one key frame and said non-key frames is compressed only once and is referenced as many times as necessary by said video track layout.

32. (Original) A computer readable storage medium as in claim 31 wherein each of said video track at least one key frame is near a center of each of said plurality of blocks.

33. (Original) A computer readable storage medium as in claim 32 wherein each of said plurality of blocks has a size that is one of equal to a predetermined size and smaller than said predetermined size.

34. (Original) A computer readable storage medium as in claim 33 wherein said preferred layout is a two-dimensional array.

35. (Original) A computer readable storage medium as in claim 34 further comprising:

dividing said preferred layout such that a smaller size block is at a further top and a further left corner of said preferred layout and a larger size block is at a further bottom and a further right corner of said preferred layout; and selecting said at least one key frame such that said at least one key frame is closer to a further top and a further left corner of each of said plurality of blocks.

36. (Original) A computer readable storage medium as in claim 35 wherein a frame differencing compression method is used to compress each of said plurality of blocks separately.

37. (Canceled)

38. (Original) A computer readable storage medium as in claim 36 wherein said method is performed by a server computer system.

39. - 43. (Canceled)

44. (Currently amended) ~~A computer readable storage medium as in claim 43~~ A computer readable storage medium containing executable computer program instructions which when executed cause a digital processing implemented method for receiving and

using a data set enabling interactive random access for different views of an object, said method comprising:

transmitting a request to receive said data set, said data set including frames of said object, said frames representing views of said object; and
receiving said data set wherein said frames were arranged in a preferred layout, said preferred layout was divided into a plurality of blocks wherein each of said plurality of blocks was compressed separately wherein an input is used for manipulating said object using a cursor which is display on a display device;

receiving said input which requests a selected number of said views;
mapping said input to a selected appropriate frames in said frames; and
decompressing said selected appropriate frames;
storing said appropriate frames that are compressed; and
allowing a user to playback said selected number of said views in a movie-like sequence wherein said method is performed by a digital processing system wherein said data set is received from a server computer system and wherein said data set further comprises at least one key frame and a plurality of non-key frames for each of said plurality of blocks, each of said at least one key frame was compressed prior to said non-key frames such that a compressing sequence includes going away from said key frame until reaching a boundary of each of said plurality of blocks to cover each of said non-key frames.

45. (Original) A computer readable storage medium as in claim 44 wherein said preferred layout, said plurality of blocks, said at least one key frame, and said plurality of non-key frames were arranged such that a longest compressing path of any one of said non-key frames and said key frame is less than two frames from said key frame.

46. (Original) A computer readable storage medium as in claim 45 wherein said data set further comprising a video track layout for said views, said video track layout making references to a data source track, said data source track including compressed data for said views wherein each of said at least one key frame and said non-key frames is compressed only once and is referenced as many times as necessary by said video track layout.

47. (Original) A computer readable storage medium as in claim 46 wherein each of said at least one key frame is near a center of each of said plurality of blocks.

48. (Original) A computer readable storage medium as in claim 47 wherein each of said plurality of blocks has a size that is one of equal to a predetermined size and smaller than said predetermined size.

49. (Original) A computer readable storage medium as in claim 48 wherein said preferred layout is a two-dimensional array.

50. (Original) A computer readable storage medium as in claim 49 wherein said preferred layout is divided such that a smaller size block is at a further top and a further left corner of said preferred layout and a larger size block is at a further bottom and a further right corner of said preferred layout and wherein said at least one key frame is closer to a further top and a further left corner of each of said plurality of blocks.

51. (Original) A computer readable storage medium as in claim 50 wherein said method is performed by a digital processing system and wherein said data set is received from a server computer system.

52. (Original) A computer readable storage medium as in claim 51 wherein a frame differencing compression method is used to separately compress each of said plurality of blocks.

53. (Canceled)

54. (Currently amended) ~~A system as in claim 53 further comprising~~ A digital processing system for processing a data set enabling interactive random access for different views of an object, said system comprising:

means for storing a plurality of frames of said object, said plurality of frames

representing a set of views of said object;

means for assigning a reference number to each of said plurality of frames;

means for arranging said plurality of frames in a preferred layout; and

means for dividing said preferred layout into a plurality of blocks having frames sharing spatial similarities and compressing each of said plurality of blocks separately;

and

means for selecting at least one key frame and a plurality of non-key frames for each of said plurality of blocks and means for compressing said at least one key frame prior to compressing non-key frames such that a compressing sequence includes going away from said key frame until reaching a boundary of each of said plurality of blocks to cover each of said non-key frames.

55. (Original) A system as in claim 54 wherein said dividing said preferred layout into a plurality of blocks and said selecting at least one key frame and a plurality of non-key frames for each of said plurality of blocks is such that a longest compressing

path of any one of said non-key frames and said key frame is less than a predetermined number of frames from said key frame.

56. (Original) A system as in claim 55 further comprises means for including a video track layout for said set of views, said video track layout making references to a data source track, said data source track to comprise compressed data for said set of views wherein each of said at least one key frame and said non-key frames is compressed only once and is referenced as many times as necessary by said video track layout.

57. - 60. (Canceled)

61. (Currently amended) ~~A system as in claim 60~~ A digital processing implemented system for receiving and using a data set enabling interactive random access for different views of an object, said system comprising:

means for transmitting a request to receive said data set, said data set including

frames of said object, said frames representing views of said object; and

means for receiving said data set wherein said frames were arranged in a preferred layout, said preferred layout was divided into a plurality of blocks wherein each of said plurality of blocks was compressed separately wherein an input is used for manipulating said object using a cursor which is displayed on a display device;

means for storing said appropriate frames that are compressed; and
means for allowing a user to playback said selected number of said views in a
movie-like sequence wherein said data set further comprising at least one key frame and a plurality of non-key frames for each of said plurality of blocks, each of said at least one key frame was compressed prior to said non-key frames such that a compressing sequence includes going away from said key frame until reaching a boundary of each of said plurality of blocks to cover each of said non-key frames.

62. (Original) A system as in claim 61 wherein said preferred layout, said plurality of blocks, said at least one key frame, and said plurality of non-key frames were arranged such that a longest compressing path of any one of said non-key frames and said key frame is less than two frames from said key frame.

63. (Original) A system as in claim 62 wherein said data set further comprising a video track layout for said views, said video track layout making references to a data source track, said data source track including compressed data for said views wherein each of said at least one key frame and said non-key frames is compressed only once and is referenced as many times as necessary by said video track layout.

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☒ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER: _____**

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.